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ABSTRACT

Alternative and emergent organizational perspectives are potentially useful in studying the organization and operation of public elementary schools. In particular, the image of organizations as loosely coupled systems is applicable to educational organizations. Yet, recent research indicates that tight linkages enhance school effectiveness. This study employed a meta-analytic technique to describe and compare the strength of coupling in instructionally effective schools. Findings indicate that (1) schools so designated vary in the nature and strength of coupling relative to the principal and other organizational elements; (2) multiple patterns of coupling are so rich and diverse that simple designators like tightly coupled and loosely coupled are insufficient to explain coupling's nature; (3) coupling in effective schools is so diverse that explanations other than tight linkages must account for their success; and (4) the variance of coupling strength challenges school improvement programs designed to create effective schools through procedures that tighten interschool and interdistrict linkages. (KS)

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Strength of Organizational Coupling in the Instructionally Effective School[1]

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There are a variety of alternative and emergent organizational perspectives which are potentially useful in studying the organization and operation of public elementary and secondary schools. In particular, the image of organizations as loosely coupled systems has been argued to be especially applicable to educational organizations (Clark, 1981; Weick, 1976, 1982). That is, the individuals, units, processes, and actions within public elementary and secondary schools may be more loosely linked than classical, bureaucratic theory would presume and this loose coupling is not necessarily an indication of organizational pathology.

However, recent research on the instructionally effective school (IES) (Edmonds, 1978, 1979) indicates that tight linkages enhance effectiveness. The IES literature identified those variables characteristic of successful urban schools (Bossert, Dwyer, Rowan, & Lee, 1981; Clark, Lotto, & McCarthy, 1980; Edmonds, 1979; Mann & Lawrence, 1981). Edmonds (1979, p. 22) asserted that the IES is characterized by:

(1) Strong administrative leadership without which the disparate elements of good schooling can neither be brought together nor kept together;

(2) A climate of expectation in which no children are permitted to fall below minimum but efficacious levels of achievement;

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(3) An atmosphere that is orderly without being rigid, quiet without being oppressive, and generally conducive to the instructional business at hand;

(4) A commitment to pupil acquisition of basic skills that takes precedence over all other school activities;

(5) The divergence, when necessary, of school energy and resources from other business in furtherance of the fundamental objectives; and,

(6) The establishment of some means by which pupil progress can be frequently monitored.

These variables would appear to indicate that, at least at the school level, the individuals, units, processes, and actions within the IES are tightly coupled. These schools, in fact, have been described as bureaucracies that work. However, the meta-analysis of a set of case studies of IESs reported here resulted in the generation of multiple hypotheses about the strength of organizational coupling within the IES.

Coupling is an organizational variable. Organizational coupling is the relationship or interaction that exists between and/or among organizational elements, i.e., those "things" (constants or variables) that comprise the organization. The relationship between and/or among organizational elements can be measured and described in terms of the quantitative and qualitative textural characteristics of the relationship.

Categories of organizational elements include:

Edificial Elements: Formally recognized or designated components of the organization (e.g., positions, philosophies, primary work groups);

Functional Elements: Those activities that comprise the work of the organization; those "things" the organization is intended to do including (1) substantive elements that represent the essence of the organization (e.g.,

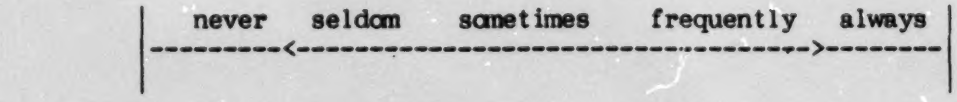
teaching) and (2) maintenance elements or activities common to all organizations (e.g., planning, staffing);

Procedural Elements: The processes and behaviors of organizations and individuals within them that comprise the process of organizing (e.g., decision making, needs assessment, problem solving);

Extra-Organizational Elements: Elements outside of the organization which interact temporarily, sporadically, or incompletely with specific organizational elements, e.g., regulatory bodies (e.g., courts, legislatures, licensing authorities);

Idiographic Elements: Activities engaged in by individuals to interpret, order, or respond to organizational happenings (e.g., sensemaking, cause mapping, empire building).

In addition to the specification of organizational elements, coupling as a tool of organizational analysis requires the investigation of the relationship between and/or among organizational elements within and/or across categories of elements. Thus, it is necessary to describe the nature or textural characteristics of the relationship. One dimension of the relationship is quantitative, i.e., the frequency of interaction between and/or among specified elements. This quantitative dimension can be depicted on a continuum such as:



The second dimension of the relationship is qualitative and can be portrayed by the following characteristics:

(i) Reliability - the extent to which one element reacts in the same way to the stimulus of another element over repeated

instances of reaction, as characterized by consistency and stability;

(2) Responsiveness - the extent to which one element adjusts quickly to altered conditions of another element, as characterized by reciprocity, harmony, and rapidity;

(3) Dependence - the extent to which one element relies upon, needs the aid or support of, or supplements and complements another element, as characterized by necessity, support, and synergism.

This taxonomy of organizational coupling (Clark, Astuto, Kuh, 1983) provided the structure for assessing the strength of coupling within the IES. This study focused on the variable cluster of strong administrative leadership which, based on the literature, is a key characteristic of the IES. An essential organizational element within that variable cluster is the building principal. The IES literature implies tight linkages between the principal and other organizational elements at the school level. The image depicted is one of a principal who is directly and personally involved in the development, implementation, and evaluation of the instructional program. S/he is pictured as actively participating in the development of plans for dealing with achievement problems in the basic skill areas and in the identification and communication of specific instructional strategies. This principal has and communicates high expectations for achievement of both teachers and students.

This report is limited to a discussion of the findings of this study relative to interactions between the principal and teachers. These interactions are central to the construct of strong administrative leadership. Additionally, the meta-analysis of case studies of IESs provided the greatest amount of evidence about the quantity and quality of these interactions.

Objectives

The purpose of tnis study was to describe the IES from the perspective of organizational coupling. That is:

1. How can the interactions between the principal and teachers be portrayed in terms of coupling strength?
2. To what extent do portrayals of coupling strength relative to interactions between the principal and teachers vary among the case studies?

Procedures

Data Sources

This study employed a form of meta-analysis (a modification of the Rand Corporation comparative case survey technique) to examine the nature of coupling in schools designated as instructionally effective relative to the variable cluster of administrative leadership. The Rand case survey technique employs an instrument which is filled out as completely as possible, at varying levels of confidence, for each case included in the study.

Clark, Lotto, and McCarthy (1980) completed a study designed in part to identify the strongest hypotheses to explain the existence of a large number of successful urban elementary schools or programs. One portion of that study (McCarthy, 1980) was an aggregation and analysis of successful urban elementry schools and programs using a modification of the Rand Corporation comparative case survey methodology. Fifty-nine cases were chosen which met the following criteria.

1) One or more of six independent variables (i.e., leadership, personnel, financial allocations, curriculum and instruction, resources and facilities, and community interactions) must be related to one or more of six dependent variables (i.e., student achievement, student

attitudes toward schools, student self-concept, teacher attitudes toward students, teacher morale, and community/parent attitudes toward school);

2) The study must represent an attempt at systematic inquiry;

3) The study must be limited in scope to a single school or school district.

These fifty-nine cases were used in this study. Although these cases lacked recency and richly descriptive detail there were several advantages to using them since they (1) represented an intact sample of IESs, (2) were analyzed using a modification of the Rand Corporation comparative case survey technique, (3) provided descriptive detail, though scanty in some instances, of the variables investigated, and (4) were used to generate a set of common characteristics of IESs that could be compared with the results of a study of organizational coupling within IESs.

Instrument Development

The development of the case survey instrument required that the variable cluster of strong administrative leadership be unpacked into individual variables that represent hypothetical interactions between and/or among organizational elements. That is, the IES characteristic of strong administrative leadership was analyzed using both the IES literature and the taxonomy of coupling. Based on the analysis, individual variables were specified, i.e., interactions between:

1. principal - teacher
2. principal - groups of teachers
3. principal - non-teaching staff
4. principal - superordinate
5. principal - central office staff

6, principal - parents/community

7. principal - teachers' union

Having identified a priori a set of organizational elements and possible interactions representative of the variable cluster of strong administrative leadership, the next step in the development of the instrument would have been the identification of closed-ended items to gather data relative to the quantitative and qualitative dimensions of coupling. However, the case survey instrument was modified to include only open-ended items because of (1) the lack of descriptive detail in the case studies and (2) the rudimentary level of efforts to operationalize the construct of coupling. The open-ended nature of the instrument allowed the recording of all evidence provided by the case studies relative to the organizational elements, interactions of elements, and the quantitative and qualitative dimensions of the interactions. Additionally, a supplemental log was included to record evidence of interactions not specified a priori.

Data Analysis

The data were analyzed to describe the strength of coupling within the IES. The coupling strength of the interactions between the principal and teachers was measured using the textural characteristics of coupling. The determination of coupling strength required the use of both the quantitative and qualitative dimensions. Quantitatively, it was necessary to determine the frequency of the occurrence of interactions ranging on a continuum from always to frequently and seldom to never. Qualitatively, the interactions were placed on a continuum ranging from more to less relative to the reliability, dependence, and responsiveness of the interaction. This analysis of coupling strength is depicted in Figure 1 relative to the reliability of the interactions.

Reliability		Frequency	
Seldom More	always	Frequent More	
never	always	always	
I		II	
III	never	IV	never
Seldom Less		Frequent Less	

Figure 1. Representation of the Textural Charactistic of Reliability of Interaction Between the Principal and Teachers in IESs.

For example, the frequency of principal <---> teacher interactions could be placed on a continuum from never to always. It is likely that the frequency of interaction varies among schools and within schools by individual teachers. Regardless of the frequency of the interaction, the textural characteristic of reliability can be observed and placed on a continuum from less to more depending, for example, upon the extent to which the principal reacts in the same way under the same circumstances to all teachers in repeated instances over time. Thus, the interactions identified in the case studies could be placed in the quandrants represented in Figure 1. Tight coupling is represented by quandrant II and loose coupling is represented by quandrant III. Quandrant I and IV both depict a middle range of organizational coupling.

Portrayal of the Strength of Coupling in Interactions Between the Principal and Teachers in the IES

Frequency of Interactions

Quantitatively, the frequency of interactions between the principal and teachers was described or implied by twelve (12) case studies. Each case was assigned a number (see Appendix A) and the number is included when examples from

the case studies are provided. The frequency of interactions varied from low to high with the majority reporting a moderate level of frequency. Instances of high frequency were described as follows:

-the principal indicated at the first faculty meeting that he would again visit each classroom at least thirty times during the course of the school year (10)

-during the three-month observation period, the principal conducted discussion meetings with groups of teachers (10)

-the principal formed and met with a variety of school committees designed to solve specific school problems (58)

-the principal shared information with teachers through a principal - teacher newsletter (58)

The case studies that described a moderate level of frequency of interactions between the principal and teachers reported regular meetings with the entire faculty or groups of teachers, systematized methods of sharing information, and periodic classroom observations. However, one case highlighted more informal interactions:

-the principal indicated that "he was not the type to breathe down the neck of his staff"; the study team noted, however, that this principal was "quietly omnipresent"; the principal made periodic formal observations, delivered paychecks to teachers in their classrooms, and ate lunch daily with the teachers. (47)

In this instance, while the frequency of interactions between the principal and teachers was described as moderate, the principal was highly visible around the school.

Two case studies reported a low level of frequency of interaction between the principal and teachers. In one instance the teachers (26 of 71 or 36.6%) reported that they never received any information from the principal about the

existence of a certain program and the low level of interaction constituted a complaint. In the other instance, however, the principal observed that his responsibilities related to administration and the teachers were responsible for teaching and maintaining order.

Based on the analysis of the case studies, these IESs were characterized generally by a moderate level of frequency of interaction between the principal and teacher rather than the high level implied by the IES literature.

The data provided by this set of case studies challenge the assumptions and/or interpretations of the IES literature relative to the frequency of interaction between the principal and teachers. Additionally, the data lead to the generation of a set of hypotheses about the frequency of interactions involving the principal in the IES.

- The frequency of interaction within the IES is variable and, therefore, not a necessary characteristic of the IESs.
- But, these schools do seem to be places in which a low level of interaction between the principal and teachers is rare.
- The IES seems to be a school in which the principal is active.
- The quality rather than the quantity of interactions may be the discriminating factor in the IES.

Reliability

The qualitative textural characteristic of reliability is measured by the degree of consistency and stability of the interaction.

Consistency.

Consistency, in this instance, is the extent to which interactions between the principal and teachers are more nearly the same despite changes in the population of teachers. Specific instances of consistency were observed in the case studies, e.g.:

-good communication with the staff facilitated a coordinated reading

approach; the good community reputation of the school was reinforced to the staff (47)

-the principal presented information to teachers and parents in a series of "how to" (i.e., information sharing) meetings (05)

-all teachers and educational assistants participated in regularly scheduled in-service workshops conducted by the principal (37)

-the principal made it clear to all teachers that they will be expected to maximize success and minimize failure (46)

-the principal communicated to all teachers a concern for student achievement (10)

-the principal stressed his availability for meetings with teachers individually or in groups and urged teachers to use him as often as they felt warranted (10)

-the principal stated at the initial faculty meeting that it was essential for teachers to maintain an atmosphere of discipline and order; emphasis on discipline was communicated to teachers both verbally and in writing (10A)

-the principal used a faculty newsletter to describe new and effective techniques that teachers were using (06)

Stability. The other measure of reliability is stability. Stability, in this instance, refers to the extent to which interactions between the principal and teachers were more nearly the same despite the passage of time. Specific examples of stability were recorded in the case studies, e.g.:

-the principal invests the school with a sense of predictability, discipline, and security (47)

-the principal conducted a series of "how to" meetings (05)

-the principal distributed a weekly calendar of activities (41)

-the principal visited the classrooms often (06)

-the principal monitored the system throughout the year and provided feedback to individual teachers on a regular basis (46)

-the principal intended to visit each classroom at least thirty (30) times during the school year (10).

The routines described in the examples from the case studies implied that a similar level of interaction between the principal and teachers was ongoing.

Again, the data provided by the analysis of this set of case studies leads to the generation of several hypotheses about the reliability of interactions between the principal and teachers in the IES.

- Whatever the frequency, the reliability of the interactions between the principal and teachers seems to be extremely high.
- Interactions between the principal and teachers are characterized by a high level of consistency since, despite the level of frequency, the principal interacts and communicates similarly with all teachers.
- Interactions between the principal and teachers are characterized by stability, i.e., the principal fosters a sense of predictability in the operation of the workplace.

Responsiveness.

The responsiveness of interactions between the principal and teachers was assessed by noting the degrees of reciprocity, harmony, and rapidity of the interactions as indicated by the case studies.

Reciprocity. Reciprocity refers to the extent to which interactions between the principal and teachers were mutually advantageous. Specific examples of reciprocity were recorded in the case studies, e.g.:

-when school funds for supplies were exhausted, teachers raised the needed money; teachers waived contractual rights because of the fairness of the principal (47)

-nine of eleven teachers indicated that there was meaningful teacher participation in decision-making (01)

-two teachers asked for and received the principal's permission to study and possibly redesign the reading program (57)

-the principal explained what was necessary in classroom design and modified curriculum, but those two components were considered the teacher's responsibility (46)

-the principal established mechanisms and procedures to ensure shared planning and decision-making; teachers came up with many good ideas through shared decision-making; teachers came to have a greater understanding of the complexity of decision-making and identified more with the administration (54)

These examples represented instances in which reciprocity was reported as high.

Harmony. Another measure of the responsiveness of the interaction is harmony. Harmony refers to the extent to which interactions between the principal and teachers were characterized by a shared valuing or understanding of a specific stimulus. The case studies provided extensive examples of varying degrees of harmony. Since one of the foci of the IES case studies was staff morale or teacher attitudes toward the school, attention to the harmony of the interactions was not surprising. Instances in which the degree of harmony was high were reported, e.g.:

-teachers thought the school was well-run and a good place to work; friendly, cooperative relationships existed among teachers and between teachers and the principal; teachers reported that since expectations for them were stated by the administration, they knew what to do and felt they were working toward a common goal (47)

-ten of eleven teachers indicated that contacts with administration were positive and interactive; mutual goal setting, planning, and implementation occurred among members of the teaching team, supportive staff and administration; eight of eleven teachers indicated that the program was well-administered (01)

-teachers and the principal agree on an open-door policy for parents (41)

-teachers and the principal recognized the need for and importance of parental interest and involvement (57)

-teachers were positive about the administration or leadership style (58)

-both the principal and teachers were aware of standards of evaluation (46)

Instances were also reported in which the degree of harmony would be characterized as low, e.g.:

-teachers saw administrators making decisions more often than they should and teachers less often, particularly regarding orientation, evaluation of lesson plans, controversial classroom content, availability of guidance material, faculty assignments, school organization, evaluation of curricular materials;

actual participation of administrators in decision-making was not consistent with respondents' perceptions of how things should be (25)

-in response to all statements asserting that teacher involvement in decision-making and communication channels among staff were adequate, over one-third and sometimes one-half of the teachers disagreed (52)

-several teachers commented that the real reason the principal visited the classrooms was to check up on them (10).

Obviously, harmony in interactions between the principal and teachers is closely related to working conditions, the way teachers feel about the school in which they work. The examples provided by the case studies verified that the degree of harmony in interactions between the principal and teachers varied by schools and within schools by individual teachers.

Rapidity.

Another measure of responsiveness in rapidity. Rapidity in this instance refers to the speed of response between the principal and teachers. Only two of the case studies provided evidence about this characteristic, i.e.:

-the principal and school cabinet devised a supply system that allowed teachers to pick up supplies immediately upon making a verbal request (24)

-in response to a questionnaire item, 17 (24%) of the teachers felt that their problems had not been attended to at all or had been addressed to a very little extent by the principal; one-third to one-half of the teachers thought the principals attended to their problems to a great or considerable extent (44)

The lack of evidence of rapidity in the case studies was surprising in that one of the stated values of bureaucratic organization is the rapidity of response made possible through the structure of the organization. The examples from the case studies indicated that a problem of delayed response time existed in the instances reported.

The data provided by the analysis of this set of case studies lead to the generation of several hypotheses about the responsiveness of interactions between the principals and teachers in the IES.

- These schools appear to be places in which the principal and teachers work together to their mutual advantage.
- These schools vary in the extent to which interactions between the principal and teachers are characterized by harmony. This is surprising in that the IES has been viewed as a clan characterized by shared values. Even with the limited data provided by the case studies, the degree of harmony was less than expected.
- Minimal evidence was provided relative to the rapidity of response between the principal and teachers. This could indicate that rapidity is not an essential characteristic of these interactions. Or, it could indicate that rapidity is only noteworthy by its absence and was not reported because high levels of rapidity existed. Or, perhaps lower levels of rapidity are tolerated when other qualitative characteristics of responsiveness are high.

Dependence.

The qualitative textural characteristic of dependence, i.e., the extent to which one element relies upon, needs the aid or support of, or supplements and complements another element, is characterized by necessity, support, and synergism.

Necessity. Necessity refers to the extent to which the interaction is required for the organizational survival of either element. Extensive evidence was provided by the case studies about the necessity of interactions between the principal and teachers. Based on the evidence in the case studies, the necessity of interactions in the school organization derived from organizational functions, positions, and offices. Specific examples included:

-principal serves as team leader in assuring the efficient operation of the

RIT in school; he also determined the placement and scope of services offered (17)

-the success of the program was dependent upon the principal making the organizational changes necessary for continuing support of the program (01)

-at the local level the principal is responsible for the administrative aspects of the school program including the assignment of teachers to classes, conferring with parents, involving the community, supervision of instructional and staff development activities (57)

-what the principal clearly has control of is the formal structural arrangement of the school by which, e.g., faculty are communicated with and decisions are made (08).

Fifteen case studies provided evidence of the necessity of interactions between the principal and teachers. All of the examples related to the administrative role and hierarchical position of the principal.

Support. Support refers to the extent to which one element provides aid and assistance to another element. Direct evidence was provided in the case studies of principals providing support to teachers, e.g.:

-principal insulated the teachers from community and bureaucratic problems (47)

-principal relieved corrective reading teachers of other duties so they could administer tests; principal exercised ingenuity in supplying needed materials (31)

-principal helped teachers become skillful at group problem solving and decision-making through on-going activities or inservice sessions (08)

-principal supported and encouraged risk taking among the staff (54)

-principal made time available for weekly cluster and grade level conferences (25)

-principal was supportive of teachers attending workshops and seminars (10A)

Indirect evidence was provided of teachers giving support to the principal by, e.g., participating in shared decision-making, offering suggestions for solving school problems, and following up in implementing solutions to school problems.

Synergism. Finally, examples were provided by the case studies of synergism in the interactions between the principal and teachers. Synergism refers to the extent to which the interaction is mutually advantageous and enhances the effectiveness of each element or the organization. Possible instances of synergism were provided in three case studies, i.e.:

-administrative requirements for teachers to stay in the reading lab with their classes improved not only the utility of the lab but also increased teacher effectiveness in the classroom (47)

-efforts to make the school environment a "warm, giving, active, and accepting place" helped improve student attitudes not only toward school and self but also toward fellow students (14)

-efforts by the principal and teachers in fostering positive school-community relations resulted in the school being recognized and winning an award for the positive nature of the school-community relations.

Insufficient data were provided to assess the extent of synergism in these interactions.

The data provided by the analysis of this set of case studies lead to the generation of several hypotheses about the dependence of interactions between the principals and teachers in the IES.

- The high level of dependence reported in the interactions between the principal and teachers could be an indication of model bias on the part of both the observers and respondents. The bureaucratic bias may be so strong that it is played into the heads of the players. "Believing is seeing" (Weick, 1979).

The fact that direct evidence was provided about the support of the principal for the teachers but only indirect evidence was provided about support of the teacher for the principals may be rooted in role expectations of both observers and participants. That is, there is an expectation that the principal based on position and function within the organization provides support for the work of teachers. There is no corresponding expectation that teachers support the principal. These schools seem to be places in which there is a high level of dependence in interactions between the principal and teachers. However, the one-sided nature of this dependence deserves further consideration.

Summary and Conclusions

The meta-analysis of this set of case studies of IESs uncovered patterns of coupling strength in the interactions between the principal and teachers. The portrayals of coupling strength revealed differences in the quantity and quality of these interactions.

The frequency of interactions between the principal and teachers ranged on a continuum from low to high with the majority falling in a moderate range (see Figure 1). A moderate level of frequency challenges the inferences made in the IES literature and is similar to the frequency level that would be expected in ordinary schools. Thus, the discriminating factor in these interactions within the IES is qualitative rather than quantitative.

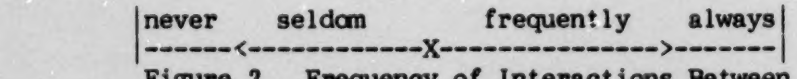


Figure 2. Frequency of Interactions Between the Principal and Teachers in the IES.

The qualitative dimension includes reliability, responsiveness, and dependence. Reliability is the extent to which the principal interacts with

teachers in the same way over repeated instances of interaction as characterized by consistency and stability. The meta-analysis of this set of case studies provided numerous examples of high levels of consistency and stability. These principals invest their schools with a sense of predictability and purpose. In many instances systematic mechanisms were in place to facilitate effective communication with teachers. A distinct pattern of coupling strength emerged. Even with moderate levels of frequency, the reliability of interactions between the principal and teachers was high.

Responsiveness is the extent to which one element (principal or teacher) adjusts quickly to altered conditions of another element as characterized by reciprocity, harmony, and rapidity. The meta-analysis of these case studies provided evidence of high degrees of reciprocity. That is, interactions between the principal and teachers were mutually advantageous. However, the case studies reported substantial variance relative to the harmony of the interactions. Harmony is the extent to which the interactions were characterized by shared values or understandings. The degree of harmony varied by schools and within schools by individual teachers and principals. The final measure of responsiveness is rapidity, the speed of response between the principal and teachers. Minimal evidence was provided relative to rapidity leading to multiple hypotheses. Perhaps high levels of reliability decrease the importance of rapidity. Perhaps rapid responses were so common that they were not noteworthy. The evidence provided about the three characteristics of responsiveness (reciprocity, harmony, rapidity) resulted in an ambiguous portrayal of the degree of responsiveness of interactions between the principal and teachers. As represented in many of these case studies, the level of responsiveness was often low to moderate.

Dependence is the extent to which one element relies upon, needs the aid or support of, or supplements and complements another element as characterized by necessity, support, and synergism. Fifteen case studies provided evidence of the

necessity of interactions between the principal and teachers. All of the examples related to the administrative role and hierarchical positions of the principal. The case studies tended to support a picture of a high degree of dependence, but the picture was one-sided. Examples were provided of the teachers' dependence on the principal; no examples were provided of the principal's dependence on the teachers. Additionally, direct evidence was given of principals having supportive interactions with teachers. Only indirect evidence was given of teachers having supportive interactions with principals. Finally the characteristic of synergism requires complex observations. The case studies did provide examples of situations in which interactions between the principal and teachers might be considered synergistic, but the insufficient information prevented judgments as to this measure of dependence. Overall, however, the level of dependence in interactions between the principal and teachers can be characterized as high.

The meta-analysis of this set of case studies suggested that:

1. Schools designated as instructionally effective vary in the nature and strength of coupling between the principal and teacher.
2. Multiple patterns of coupling are so rich and diverse that simple designators such as tightly coupled and loosely coupled are insufficient to explain the nature of coupling within the IES and such general descriptors tend to distract the observer from important differences that exist in coupling within organizations.
3. Organizational coupling in instructionally effective schools is so diverse that explanations other than tight linkages must account for their success.
4. As suggested by Peters and Waterman in <u>In Search of Excellence,</u> these educational organizations are probably characterized by simultaneous loose-tight properties.

The findings of this study further documented the utility of organizational coupling as a tool for organizational analysis. Even with a limited focus on interactions between two organizational elements (principals, teachers) and using a set of case studies that provided limited descriptive detail, quantitative and qualitative differences in organizational coupling were observed.

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